REMARKS

Applicants thank the Examiner for acknowledging the claim for priority under 35

U.S.C. § 119, and receipt of certified copies of the priority documents submitted April 26, 2000.

Applicants thank the Examiner for considering the reference cited with the Information

Disclosure Statement filed January 20, 2001.

Status of the Application

Claims 1-32 are all the claims pending in the Application, as claims 12-32 are hereby

added to more fully define the current invention. Claims 1 and 7 have been rejected.

Allowable Subject Matter

Applicants thank the Examiner for indicating that claims 4-6 are allowed. Applicants

note that claim 4 is amended herein only to correct a typographical error. Such a correction is,

by its very nature, non-limiting. Thus, no estoppel should apply.

Applicants thank the Examiner for indicating that claims 2, 3 and 8 would be allowable if

merely rewritten in independent form. Applicants have rewritten allowable claims 2, 3 and 8 as

new independent claims 12, 13 and 17, respectively. Thus, claims 12, 13 and 17 are believed to

be immediately allowable.

Applicants thank the Examiner for indicating that claims 9-11 would be allowable if

rewritten to overcome the claim objection under 37 C.F.R. § 1.75(c) discussed below.

Applicants have rewritten claims 9-11 as new claims 14-16 (dependent from new claim 12) in

the manner suggested by the Examiner. Thus, claims 14-16 are believed to be immediately

allowable.

Additionally, claims 9-11 have been amended (with claim 9 rewritten in independent form) to clearly recite "a method of controlling a print system," as was originally intended. Claims 9-11 are respectfully submitted to be allowable at least by virtue of their recited features.

Specification Objection

The Examiner has objected to the Specification for various informalities. The informalities noted by the Examiner have been corrected. Thus, withdrawal of this objection is respectfully requested.

Claim Objection

The Examiner has objected to claims 9-11 under 37 C.F.R. § 1.75(c) as being of improper dependent form for failing to limit the subject matter of the previous claim. Claims 9-11 have been amended as discussed above, and new claims 14-16 (dependent from new claim 12) have been added corresponding to the Examiner's helpful suggestions. Thus, withdrawal of this objection is respectfully requested.

Claim Rejections

The Examiner has rejected: (1) claim 1 under 35 U.S.C. § 103(a) as being unpatentable over Kashiwazaki (US 6,459,497 B1; hereinafter "Kashiwazaki ") in view of Mitsuhashi (US 6,320,667 B1; hereinafter "Mitsuhashi"); and (2) claim 7 under 35 U.S.C. § 103(a) as being unpatentable over the combination of Kashiwazaki, Mitsuhashi, Rosenthal (US 6,337,747 B1; hereinafter "Rosenthal") and Mori (US 6,089,765, hereinafter "Mori"). These rejections are respectfully traversed.

The Applied References

Kashiwazaki discloses a system whereby "registration matters" (*i.e.*, font-pattern, macro-

pattern, overlay pattern, symbol set, fill pattern, etc.) are stored and deleted from a printer device.

The system is shown in FIG. 3, which discloses an in-line process wherein data is transferred

from computer 3000 to input unit 18, then to emulation judgement unit 100, either of emulation

interpreters 101/102, and into development unit 103, which generates a "one page bitmap

image."

Input unit 18 temporarily stores the incoming data, and transmits it to emulation

judgement unit 100, which in turn forwards the data to one of the emulation interpreters 101/102.

Emulation interpreters 101/102 then interpret the input data, and if the input data includes

various registration commands, the emulation interpreter obtains data on current time and date,

and performs processing for registering various information into the registered matter storage

area 106. Otherwise, the emulation interpreters refer to the various registered matters stored in

storage area 106 and output data generated by interpreting the input data to development unit

103. (Col. 7, line 63 - col. 8, line 2).

Development unit 103 then outputs the image to frame memory 104, and printer unit

interface 16 records the image on a recording medium by controlling printer unit 17.

Thus, Kashiwazaki discloses a system wherein print supporting information (such as font

and symbol types) is stored in the printer for use with incoming input data. Kashiwazaki fails to

teach or suggest any archiving of input data in any form, or any subsequent manipulation of such

archived input data.

Mistuhashi discloses a system directed towards *decreasing* the processing operations

performed in a printer. The system, as shown in FIG. 4A, includes application software 201,

GDI 202, and printer driver 203. These elements send a command string and a data string to

adaptive printing processor 206, which stores fractional image data by buffering at the printer

spooler 204, determines if the image needs to be rotated to match the orientation of the paper in

the attached printer, and transmits output information to an external apparatus. Printer spooler

204 serves as a memory means for the adaptive print processor 206.

In other words, Mistuhashi essentially provides a "filter which removes redundant

portions of the original PDL data including redundant PDL codes generated by printer driver

203." (Col. 12, lines 14-17). This filtering is performed prior to any transmission of any print

job to the printer.

Thus, Mistuhashi is directed to a system that seeks to place a higher processing burden on

a computer, rather than a printer. Similarly to Kashiwazaki, Mistuhashi's system fails to teach or

suggest any portion of printing apparatus 100 that could be capable of any archiving of print jobs

or any subsequent manipulation of such archived print jobs.

Rosenthal discloses a system for improving the efficiency and quality of digital image

compression systems used in printing. Specifically, PDL data is created by application programs

in computer 1, and is transmitted to printer controller 30 (FIG. 2). The operation of printer

controller 30 is disclosed in FIG. 4. A page of data is received in PDL format (S400) and stored

in RAM 34 (FIG. 3), thresholds are initialized (S401), the PDL data is rendered into a band of

rasterized data (S403) and stored in RAM 34. Then, various compressions and calculations are

24

performed (S404-S415), decompression hardware is initialized (S416), and bands are

decompressed, reconstructed, and sent to a printer (S419).

Thus, Rosenthal is narrowly directed to a system for compressing, transmitting, and

decompressing data within a printer controller and printer. Similarly to Kashiwazaki and

Mistuhashi, Rosenthal fails to teach or suggest any ability to archive any PDL or rasterized data,

or any subsequent manipulation thereof.

Lastly, Mori discloses a reprinting system for reprinting data that has been printed earlier.

Specifically, printer 10 includes a printer job management table T2 stored in RAM 13. Table T2

lists print jobs by ID number, and is accessible on LCD 18. A user can select one of the print

jobs to reprint by selecting the relevant ID number.

RAM 13 of printer 10 can store print jobs as either an ID number, a single page, or all

pages. When stored as an ID number, the printer 10 must request that the selected print job be

resent from computer 20. If stored as all the pages, the printer can simply reprint the job when

the ID number is selected. (Col. 5, lines 40-64). A user can select whether the print job will be

accessible from the printer, *i.e.*, listed in Table T2 (see FIG. 4, step S30).

Thus, Mori does disclose a system for temporarily storing print jobs so that they may be

reprinted, without changes, from a printer. However, Mori fails to teach or suggest any ability to

store different formats of print jobs, such as a PDL or a dot image.

The Examiner's Position Regarding Claims 1 and 7

The Examiner takes the position that Kashiwazaki discloses most of the features of

claims 1 and 7, except that, with respect to both claims 1 and 7, Kashiwazaki fails to teach or

suggest that "the computer comprises a logical printer driver" as claimed. (Office Action, pg. 5, 4th full par. and pg. 10, 1st full par.).

Regarding claim 7, the Examiner takes the position that Kashiwazaki fails to teach or suggest the recited "dot imaging processing section" (Office Action, pg. 8, 4th full par.); and the "archive for storing a print job" (Office Action, pg. 9, 2nd full par.).

Applicants agree that Kashiwazaki fails to teach or suggest each of these features.

In an attempt to show the recited "logical printer driver," the Examiner applies Mistuhashi, taking the position that it discloses such a feature. (Office Action, pg. 5, 4th full par.; pg. 10, 1st full par.). Further, the Examiner proffers that one of skill would have modified Kashiwazaki in view of Mitsuhashi to "increase the efficiency of the system." (Office Action, pg. 6, 4th full par.; pg. 11, 1st full par.).

In an attempt to show the recited "dot image section" the Examiner applies Rosenthal, taking the position that it discloses such a feature. (Office Action, pg. 8, 4th full par.). Further, the Examiner proffers that one of skill would have modified Kashiwazaki in view of Rosenthal because it would "increase the functionality of the CPU for compressing the rasterized image." (Office Action, pg. 9, 1st full par.).

In an attempt to show the recited "archive" the Examiner applies Mori, taking the position that it discloses such a feature. (Office Action, pg. 9, 2nd full par.). Further, the Examiner proffers that one of skill would have modified Kashiwazaki in view of Mori because "the modified printing system ... would increase the functionality of the printer." (Office Action, par. bridging pgs. 9-10).

The Applied References Fail To Teach Or Suggest All Of The Features Of Claims 1 And 7

However, Applicants respectfully submit that none of the applied references, either alone

or in combination, teach or suggest all of the features of independent claims 1 and 7.

Specifically, Applicants respectfully submit that (even if the applied references could

have been combined as the Examiner proffers), that none of the references, either alone or in

combination, teach or suggest *at least* "a logical printer driver for making print instructions of a

prepared document," where "the print information comprises storage data indicating whether the

print job is to be archived in a printer and storage format data indicating in what format the print

job should be archived."

As discussed above, neither Kashiwazaki, Mistuhashi, nor Rosenthal teach or suggest any

ability to archive print jobs in a printer. Rather, each of these references disclose systems which

immediately process and reproduce print jobs when received from their respective computers.

Thus, these references simply would not teach or suggest any inclusion of "storage data" in print

information of a print job.

Regarding Mori, as discussed above, Applicants respectfully submit that Mori only

discloses temporary storage of print jobs. Mori fails to teach or suggest any ability to store

multiple types of print jobs, nor any ability to select such different storage formats. Thus, Mori

simply would not teach or suggest any inclusion of "storage format data" in print information of

a print job.

Thus, Applicants respectfully request that the Examiner withdraw these rejections.

New Claims

Claims 12-32 are hereby added. Claims 12, 13 and 17 correspond to allowable claims 2,

3 and 8 rewritten in independent form, are supported *at least* by those claims, and are believed to

be immediately allowable by virtue of the Examiner's indication.

Claims 14-16 correspond to allowable claims 9-11 rewritten as the Examiner has

suggested, are supported *at least* by those claims, and are believed to be immediately allowable

by virtue of the Examiner's indication.

Claim 18 corresponds to claim 7, rewritten to include the feature of "wherein the output

control section also controls the storing of the dot image stored in the output work and the print

information in the print archive as the print job" (see FIG. 13 for support). The Examiner has

indicated that such a feature is not taught or suggested by any of the applied references. Thus,

claim 18 is believed to be immediately allowable.

Claims 19-31 are supported at least by FIGS. 2, 6, 12, 13 and 14 of the instant

Application, and are respectfully submitted to be allowable, *at least* by virtue of their

dependency.

Claim 32 is supported at least by FIG. 2 of the Application (and its supporting

discussion), and is respectfully submitted to be patentable over the applied references as none

teach or suggest any capability of "transferring the new print information to the storage medium

and overwriting the original print information with the new print information."

Conclusion

In view of the foregoing, it is respectfully submitted that claims 1-32 are allowable.

Thus, it is respectfully submitted that the application now is in condition for allowance with all

of the claims 1-32.

If any points remain in issue which the Examiner feels may be best resolved through a

personal or telephone interview, the Examiner is kindly requested to contact the undersigned at

the telephone number listed below.

Please charge any fees which may be required to maintain the pendency of this

application, except for the Issue Fee, to our Deposit Account No. 19-4880.

Respectfully submitted,

Timothy P. Cremen
Registration No. 50,855

SUGHRUE MION, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, D.C. 20037-3213
Telephone: (202) 293-7060
Facsimile: (202) 293-7860

WASHINGTON OFFICE
23373
CUSTOMER NUMBER

Date: September 22, 2003